## **CLAIMS**

## 5 What is claimed is:

1. A metabolite of 3'-tert-butyl-3'-N-tert-butyloxycarbonyl-4-deacetyl -3'-dephenyl-3'-N-debenzoyl-4-O-methoxycarbonyl-paclitaxel of formula Ia or a pharmaceutically acceptable salt, solvate, hydrate or prodrug thereof

10

$$R_3$$
 $R_3$ 
 $R_4$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 

wherein the substituents are as defined in the following table

Metabolite Code	<u>R1</u>	<u>R2</u>	<u>R3</u>	<u>R4</u>	<u>C9</u>
M1	SG	H	CH <sub>3</sub>	ОН	C=O
M2	SG	ОН	CH <sub>3</sub>	Н	C=O
M4 & M5	SG	H	CH <sub>3</sub>	Н	C=O
М6	OCH <sub>3</sub>	ОН	CH <sub>3</sub>	ОН	C=O
M7	OH	OCH <sub>3</sub>	CH <sub>3</sub>	ОН	C=O
M8	ОН	Н	CH <sub>3</sub>	ОН	C=O
M8A	Н	Н	CH <sub>3</sub>	(OH) <sub>2</sub>	C=O
М9	Н	Н	CH <sub>3</sub>	Н	(CH)OH

M10	Н	Н	CH <sub>3</sub>	ОН	C=O
Mli	Н	Н	СООН	Н	C=O
M12	н	Н	CH <sub>3</sub>	ОН	C=O
M13	Н	Н	CH <sub>3</sub>	Н	C=O

and

$$SG = -S - H_2CHC - NH_2CO_2H$$

$$O CO_2H$$

$$CH_2CH_2CH$$

$$NH_2$$

$$O CO_2H$$

5

2. A metabolite of 3'-tert-butyl-3'-N-tert-butyloxycarbonyl-4-deacetyl -3'-dephenyl-3'-N-debenzoyl-4-O-methoxycarbonyl-paclitaxel of formula Ib or a pharmaceutically acceptable salt, solvate or prodrug thereof

10

Ιb

wherein the substituents are as defined in the following table

<u>Metabolite</u> <u>Code</u>	<u>R</u> 1	<u>R</u> <sub>2</sub>	<u>R</u> 3	<u>R</u> 4	<u>R</u> 5	<u>R</u> 6
M14	Ή	H	CH <sub>3</sub>	CH <sub>3</sub>	H	20
M15	SG	Н	CH <sub>3</sub>	CH <sub>3</sub>	H	Н
M16	Н	Н	CH <sub>3</sub>	$CH_3$	Н	20

M17	Н	Н	CH <sub>3</sub>	CH <sub>3</sub>	ОН	Н
M18	н	ОН	CH <sub>3</sub>	CH <sub>3</sub>	ОН	Н
M19	Н	H	CH <sub>3</sub>	CH <sub>3</sub>	ОН	Н
M20	Н	Н				Н
M21	Н	Н				Н
M22	Н	Н	CH <sub>3</sub>	СООН	Н	Н
M23	н	Н	CH <sub>3</sub>	CH <sub>3</sub>	ОН	Н
M24	Н	Н	СООН	CH <sub>3</sub>	Н	Н

and

$$SG = S - H_2CHC$$

$$O CO_2H$$

$$CH_2CH_2CH$$

$$NH_2$$

$$NHCH_2CO_2H$$

wherein the side chains on M20 and M21 are as shown below:

5

10

M20	**************************************
M21	X, i, i, i,

3. A metabolite of 3'-tert-butyl-3'-N-tert-butyloxycarbonyl-4-deacetyl -3'-dephenyl-3'-N-debenzoyl-4-O-methoxycarbonyl-paclitaxel of formula Ic or a pharmaceutically acceptable salt, solvate or prodrug thereof

1c

5 wherein the substituents are as defined in the following table:

<u>Metabolite</u> Code	$\underline{\mathbf{R_{l}}}$	$\underline{\mathbf{R_2}}$	<u>R</u> 3	<u>R</u> ₄	<u>C9</u>	<u>C13</u>
M9	CH <sub>3</sub>	Н	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	(СН)ОН	(CH)OH
M10	CH <sub>3</sub>	ОН	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M10A	CH <sub>3</sub>	Н	Н	CO(OCH <sub>3</sub> )	C=O	(CH)OH
<b>M</b> 11	СООН	Н	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M10B	CH <sub>3</sub>	ОН	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M10C	CH <sub>3</sub>	Н	CO(CH <sub>2</sub> OH)	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M12	CH <sub>3</sub>	ОН	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M13	CH <sub>3</sub>	Н	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(СН)ОН
M13A	CH <sub>3</sub>	Н	Н	CO(OCH <sub>3</sub> )	C=O	C=O
M13B	CH <sub>3</sub>	ОН	CO(CH <sub>3</sub> )	Н	C=O	(СН)ОН
M13C	CH <sub>3</sub>	Н	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	(CH)OH
M13D	СН3	Н	CO(CH <sub>3</sub> )	CO(OCH <sub>3</sub> )	C=O	C=O

4. A metabolite of 3'-tert-butyl-3'-N-tert-butyloxycarbonyl-4-deacetyl -3'-dephenyl-3'-N-debenzoyl-4-O-methoxycarbonyl-paclitaxel of formula Id or a pharmaceutically acceptable salt, solvate or prodrug thereof

10

1d

wherein the substituents are as defined in the following table:

Metabolite Code	$\underline{\mathbf{R_1}}$	<u>R</u> <sub>2</sub>	<u>R</u> <sub>3</sub>	<u>R</u> 4	<u>R</u> 5
M15B	CO(CH <sub>3</sub> )	CH₂OH or COOH	COOH or CH₂OH	Н	Н
M17	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	Н	ОН
M18B	Н	CH <sub>3</sub>	СООН	н	Н
M19	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	Н	ОН
M19A	Н	СООН	CH <sub>3</sub>	Н	Н
M22	CO(CH <sub>3</sub> )	CH <sub>3</sub>	СООН	Н	Н
M23	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	H	ОН
M24	CO(CH <sub>3</sub> )	COOH or CH <sub>3</sub>	CH <sub>3</sub> or COOH	Н	Н
M23A	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	OH or H	H or OH
M23B	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	ОН	Н
M23C	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	OH or H	H or OH
M26	Н	CH <sub>3</sub>	CH <sub>3</sub>	Н	Н
M23D	CO(CH <sub>3</sub> )	CH <sub>3</sub>	CH <sub>3</sub>	OH	Н

M27 CO(CH<sub>3</sub>) CH<sub>3</sub> CH<sub>3</sub> H H

5. A pharmaceutical composition comprising a metabolite according to Claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof, and a pharmaceutically acceptable carrier, vehicle or diluent.

5

15

- 6. A pharmaceutical composition comprising a metabolite according to Claim 2 or a pharmaceutically acceptable salt, solvate or prodrug thereof, and a pharmaceutically acceptable carrier, vehicle or diluent.
- 7. A pharmaceutical composition comprising a metabolite according to Claim 3 or a pharmaceutically acceptable salt, solvate or prodrug thereof, and a pharmaceutically acceptable carrier, vehicle or diluent.
  - 8. A pharmaceutical composition comprising a metabolite according to Claim 4 or a pharmaceutically acceptable salt, solvate or prodrug thereof, and a pharmaceutically acceptable carrier, vehicle or diluent.
  - 9. A method for inhibiting tumor growth in a mammalian host which comprises administering to said mammal a tumor-growth inhibiting amount of a compound as defined in Claim 1.
  - 10. A method for inhibiting tumor growth in a mammalian host which comprises administering to said mammal a tumor-growth inhibiting amount of a compound as defined in Claim 2.

25

20

11. A method for inhibiting tumor growth in a mammalian host which comprises administering to said mammal a tumor-growth inhibiting amount of a compound as defined in Claim 3.

12. A method for inhibiting tumor growth in a mammalian host which comprises administering to said mammal a tumor-growth inhibiting amount of a compound as defined in Claim 4.